

Appl. No. 10/531,294
Amendment dated August 26, 2008
Reply to Office Action of April 28, 2008

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes a change to Figure 7. This sheet, which includes Figure 7, replaces the original sheet including Figure 7.

Attachment: one (1) replacement sheet

REMARKS

In the April 28, 2008 Office Action, the drawings were objected to and all of pending claims 1 and 2 stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the April 28, 2008 Office Action, Applicants have amended the drawings and claims 1 and 2 as indicated above. Thus, claims 1 and 2 are pending, with claims 1 and 2 being the independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Drawings

In paragraph 1 of the Office Action, the drawings were objected to as failing to comply with 37 CFR §1.121(d). In response, Applicants submit herewith one replacement sheet of drawings including Figure 7, which now includes "Prior Art". Applicants believe that the drawings now comply with 37 CFR §1.121(d). Accordingly, Applicants respectfully request withdrawal of this objection.

Rejections - 35 U.S.C. § 102

In paragraph 3 of the Office Action, claims 1 and 2 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,351,160 (Kountz et al.). In response, Applicants have amended claims 1 and 2 to more clearly define the present invention over the prior art of record.

Independent claim 1 now requires, *inter alia*, an inverter controlling rotational frequency of the electric motor corresponding to a load and *detecting driving voltage and driving current of the electric motor*; and

a control section controlling an opening degree of the variable inner volume ratio valve based on suction side pressure and discharge side pressure of the screw compression section and rotational frequency of the electric motor, the control section including a revolution number output section and an optimum inner volume ratio output section, wherein

the revolution number output section calculating a rotational frequency of the electric motor to obtain required freezing capability based on temperature detected by a temperature sensor and outputting a signal representing the rotational frequency to the inverter and the optimum inner volume ratio output section, and

the optimum inner volume ratio output section making a signal to control the opening degree of the variable inner volume ratio valve based on the suction side pressure, the discharge side pressure, the signal representing the rotational frequency, *the driving voltage and the driving current of the electric motor*, and a position of the variable inner volume ratio valve.

Independent claim 2 requires a similar arrangement of, *inter alia*, an inverter controlling rotational frequency of the electric motor corresponding to a load and *detecting driving power of the electric motor*; and

a control section controlling an opening degree of the variable inner volume ratio valve based on suction side pressure and discharge side pressure of the screw compression section and rotational frequency of the electric motor, the control section including a revolution number output section and an optimum inner volume ratio output section,

the revolution number output section calculating a rotational frequency of the electric motor to obtain required freezing capability based on temperature detected by a temperature sensor and outputting a signal representing the rotational frequency to the inverter and the optimum inner volume ratio output section, and

the optimum inner volume ratio output section making a signal to control the opening degree of the variable inner volume ratio valve based on the suction side pressure, the discharge side pressure, the signal representing the rotational frequency, *the driving voltage and the driving current of the electric motor the driving power of the electric motor*, and a position of the variable inner volume ratio valve.

In other words, independent claims 1 and 2 require control sections with optimum inner volume ratio output sections that are similar, but which make control signals based on slightly different parameters. Clearly, these structures are *not* disclosed or suggested by Kountz et al. or any other prior art of record. Specifically, at best, Kountz et al. discloses controlling variable inner volume based on suction and discharge side pressures, not the signal representing the rotational frequency, a position of the variable inner volume ratio

valve, as well as *the driving voltage and the driving current of the electric motor (claim 1)*
or the driving power of the electric motor (claim 2).

It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each and every element of the claim within the reference. Therefore, Applicants respectfully submit that independent claims 1 and 2, as now amended, are not anticipated by the prior art of record. Accordingly, withdrawal of this rejection is respectfully requested.

Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicants believe that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicants respectfully assert that claims 1 and 2 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,

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